

REMARKS

In the Office Action, claims 1-4, 13-15 and 18-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Pickering et al. (A Perceptually Efficient VBR rate Control Algorithm; IEEE Transactions on Image Processing, ISBN: 1057-4504) (hereinafter “Pickering”). Claims 5-12, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pickering. Applicant respectfully traverses these rejections for at least the following reasons.

Applicant notes that Pickering is an IEEE article that was cited as an “A” reference (i.e., merely for technological background) in the European Search Report dated October 7, 2002, as filed in an Information Disclosure Statement in this application on November 15, 2002. However, with regard to independent claims 1, 13 and 18-20, the Office Action alleges that Pickering teaches all of the limitations of these claims.

Pickering describes a rate control algorithm for a variable bit-rate (VBR) video coder. The algorithm disclosed in Pickering varies the quantizer step size of the coder according to properties of an image sequence that affect the perception of errors.

The arrangements and methodologies described and claimed in the instant application involve moving image information that includes static images (SGs) that each include a gradation part (G) as shown in Fig. 1, for example. The gradation part (G), also referred to as a partial image, is sequentially changing in concentration. In embodiments of the instant application, this concentration change is detecting by using an image signal corresponding to the line-pixels on only one line, facilitating the detection of the partial image. See, for example, page 3, lines 10-22 and page 18, line 21 to page 19, line 12 of the instant application’s specification.

Applicant respectfully submits that while Pickering relates to an algorithm for allegedly providing “decoded image sequences with a consistent perceived quality that is comparable with, or better than, the perceived quality of images coded with a CBR encoder,” there appears to be no teaching or suggestion in Pickering of “twice differentiating a value of an image signal corresponding to a plurality of line-pixels on a single predetermined line, of pixels forming a single static image” in the manner recited in independent claim 1. Even further, Pickering does not appear to teach or suggest “detecting a part sequentially changing in concentration in a partial image including the plurality of line-pixels, the partial image being a part of the static image, when the twice differentiated result is zero.”

For example, the Office Action cites to “The Spatial Derivative” portion of Pickering at page 528. While this portion discloses that the “horizontal and vertical spatial derivatives of a pixel are defined as the difference between that pixel’s luminance value and the luminance value of the pixel immediately to the right of it or below it, respectively,” there is still no disclosure of “a plurality of line-pixels on a single predetermined line, of pixels forming a single static image.”

Applicant respectfully submits that (i) an object of the present invention is to detect a gradation part from a static image, and the present invention has specific features of twice differentiating a value of an image signal on a single line, and detecting the gradation part on a basis of the twice differentiated result, (ii) on the contrary, the algorithm described in Pickering is not to detect a gradation part, unlike the above-mentioned object of the present invention, and also Pickering does not disclose, or even suggest, the specific features of embodiments of the present invention, as discussed above in detail.

Accordingly, for at least the foregoing reasons, Applicant respectfully submits that claim 1 is not anticipated by the applied Pickering reference and thus claim 1 is in condition for

allowance. Moreover, Applicant respectfully submits that the remaining independent claims 13 and 18-20 are allowable for similar reasons as those set forth above with regard to independent claim 1.

Accordingly, Applicant respectfully asserts that the rejections under 35 U.S.C. §§ 102(b) and 103(a) should be withdrawn because Pickering does not teach or suggest each feature of independent claims 1, 13, and 18-20; moreover, Applicant respectfully asserts that dependent claims 2-12 and 14-17 are allowable at least because of their dependence from their respective independent claim 1 or 13, and the reasons set forth above. As pointed out in MPEP § 2131, "[t]o anticipate a claim, the reference must teach every element of the claim." Thus, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. Of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)." Moreover, MPEP § 2143.03 instructs that "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 409 F.2d 981, 180 USPQ 580 (CCPA 1974)."

CONCLUSION

In view of the foregoing remarks, Applicant respectfully requests reconsideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.

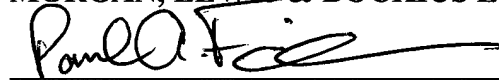
EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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